

1   **Claim 1. through Claim 17. (cancelled)**

1   **Claim 18. (currently amended)** A classification and management system for  
2   patients with lower extremity arterial occlusive disease comprising a network  
3   of remotely located computers ~~integrated to implement the steps of~~ integrated  
4   to implement the steps on-line of:

- 5       • examining a patient at a healthcare facility with lower extremity arterial  
6        occlusion disease,
- 7       • collecting patient data including physically observable conditions of the  
8        patient's lower extremities and noninvasive arterial pressure and blood  
9        flow data,
- 10      • entering and storing the collected patient data in the memory of a  
11        computer at the healthcare facility,
- 12      • transmitting said collected patient data from the healthcare facility  
13        computer to a computer at an evaluating authority,
- 14      • receiving and storing the collected patient data in the computer at the  
15        evaluating authority,
- 16      • reviewing and comparing said collected patient data against a medically  
17        accepted set of disease specific criteria at the evaluating authority to  
18        classify patients as "potentially at risk" and "not at risk" of developing  
19        complications of arterial occlusive disease,
- 20      • entering and storing patient classification data in the memory of the  
21        computer at the evaluation authority,
- 22      • transmitting said patient classification data from the evaluating authority  
23        computer to the computer at the healthcare facility,
- 24      • receiving and storing the patient classification data in the computer at  
25        the healthcare facility,
- 26      • referring patients classified as "potentially at risk" of arterial occlusive  
27        disease to an accredited laboratory for noninvasive vascular evaluation,
- 28      • transmitting the "potentially at risk" patient data from the healthcare  
29        facility to the accredited laboratory,
- 30      • entering and storing the "potentially at risk" patient data in a computer  
31        at the accredited laboratory,
- 32      • evaluating those "potentially at risk" patients at the accredited  
33        laboratory against medically accepted criteria,

34       • entering and storing the data results of said noninvasive vascular  
35        evaluation in the memory of the computer at the accredited laboratory,  
36       • transmitting said stored data results from the accredited laboratory  
37        computer to the computer at the evaluating authority for final  
38        classification,  
39       • receiving and storing the stored data results in the computer at the  
40        evaluating authority,  
41       • receiving the data and classifying each patient at the evaluating  
42        authority against medically accepted criteria as "at risk" or "not at risk"  
43        of developing arterial occlusive disease,  
44       • entering and storing patient classification in the memory of the  
45        computer at the evaluation authority,  
46       • transmitting said "at risk" or "not at risk" patient final classification from  
47        the evaluation computer to the computer at the healthcare facility,  
48       • entering and storing said "at risk" or "not at risk" patient final  
49        classification at the healthcare facility computer,  
50       • referring patients from the healthcare facility computer database having  
51        a final classification of "at risk" for critical ischemia with associated  
52        extremity lesions and patients with noninvasive evidence of severe  
53        ischemia to a vascular surgery facility for vascular surgical assessment  
54        to determine whether revascularization is necessary,  
55       • reviewing the data and assessing such "at risk" patients against  
56        medically accepted criteria as "clinical indication for operation" or "no  
57        indication for operation" at the vascular surgery facility,  
58       • electing revascularization and periodic management system evaluation  
59        at the healthcare facility or routine wound care and periodic revaluation  
60        at the healthcare facility by patients assessed as "clinical indication for  
61        operation",  
62       • monitoring patients assessed as "no indication for operation" by the  
63        healthcare facility with increased precautions to monitor for detection of  
64        any visible deterioration of the patient's lower extremities that would  
65        require reassessment,  
66       • referring patients having ulcers, pain or gangrene at the time of "no  
67        indication for operation" assessment for reassessment,

68       • referring patients classified as “no indication for operation” that develop  
69        ulcers, pair and/or gangrene to the vascular surgery facility for  
70        reassessment,

71       • reassessing the referred patient at the vascular surgery facility against  
72        medically accepted criteria as “no indication for operation” or “clinical  
73        indication for operation”,

74       • entering and storing the reassessment in a memory of a computer at  
75        the vascular surgery facility,

76       • transmitting the reassessment of “no indication for operation” or “clinical  
77        indication for operation” from the vascular surgery facility computer to  
78        the computer at the evaluating authority for reevaluation as “no  
79        indication for operation” or “clinical indication for operation”,

80       • transmitting the reevaluation from the evaluating authority computer to  
81        the computer at the healthcare faculty with the appropriate medical  
82        procedure and regimen,

83       • treating and monitoring patients classified as “not at risk”, “at risk” and  
84        assessed as “no indication for operation” or “clinical indication for  
85        operation” at the healthcare facility,

86       • receiving and storing patient treatment and progress data in the  
87        memory of the computer at the healthcare facility,

88       • providing “not at risk” patients without limb ulcers routine care and  
89        precautions at the healthcare facility,

90       • providing “not at risk” patients with limb ulcers routine wound care at the  
91        healthcare facility,

92       • providing “not at risk” patients with limb ulcers periodic reevaluation by  
93        the evaluating authority,

94       • entering and storing the periodic patient reevaluations in the memory of  
95        the computer at the evaluating authority,

96       • providing “at risk” patients assessed as “no indication for operation” or  
97        “operation not elected by patient”, and “clinical indication for operation”  
98        patient undergoing revascularization at the vascular surgery facility with  
99        intensive wound care at the healthcare facility,

100       • entering and storing patient treatment and evaluation of patients in the  
101        memory of the computer at the vascular surgery facility,

102       • transmitting the patient treatment and evaluation data of patients from  
103        the vascular surgery facility to the healthcare facility,

104       • receiving and storing the patient treatment and evaluation data of  
105       patients in the computer at the healthcare facility,  
106       • reviewing and providing periodic reevaluations of "at risk" patients data  
107       assessed as "no indication for operation" or "operation not elected by  
108       patient" with increased precautions at the healthcare facility.